

# Bay Area Air Quality Management District

939 Ellis Street  
San Francisco, CA 94109  
(415) 771-6000

**Final Proposed**

## MAJOR FACILITY REVIEW PERMIT

Issued To:  
**Cypress Amloc Land Co., Inc.**  
**Facility #A1364**

**Facility Address:**  
1 Sand Hill Road  
Colma, CA 94014

**Mailing Address:**  
~~2001 Hillside Boulevard~~ **1 Sand Hill Road**  
Colma, CA 94014

	<b>Responsible Official</b>	<b>Facility Contact</b>
	Tom Atwood, President	<del>Tom Atwood</del> <b>Jeff Terry, President Operations</b>
<b>Manager</b>	650-992-7020	650- <del>992-7020</del> <b>755-6978</b>

<b>Type of Facility:</b>	Landfill	<b>BAAQMD Permit Division Contact:</b>
<b>Primary SIC:</b>	4953	Carol S. Allen
<b>Product:</b>	Wood Waste and Construction Debris Disposal	

**ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT**

~~Signed by William C. Norton~~  
~~William C. Norton~~ **Jack P. Broadbent**, Air Pollution Control Officer

~~November 26, 2002~~  
Date

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## I. STANDARD CONDITIONS

### A. Administrative Requirements

The permit holder shall comply with all applicable requirements in the following regulations:

BAAQMD Regulation 1 - General Provisions and Definitions

(as amended by the District Board on 5/2/01);

SIP Regulation 1 - General Provisions and Definitions

(as approved by EPA through ~~86/278~~/99);

BAAQMD Regulation 2, Rule 1 - Permits, General Requirements

(as amended by the District Board on 8/1/01);

SIP Regulation 2, Rule 1 - Permits, General Requirements

(as approved by EPA through ~~21/256~~/99);

BAAQMD Regulation 2, Rule 2 - Permits, New Source Review

(as amended by the District Board on 5/17/00);

SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration

(as approved by EPA through ~~21/256~~/99);

BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking

(as amended by the District Board on 5/17/00);

SIP Regulation 2, Rule 4 - Permits, Emissions Banking

(as approved by EPA through ~~21/256~~/99); and

BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review

(as amended by the District Board on ~~54/216/04~~3).

### B. Conditions to Implement Regulation 2, Rule 6, Major Facility Review

1. This Major Facility Review Permit was issued on November 26, 2002 and expires on October 31, 2007. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than April 30, 2007 and no earlier than October 31, 2006. **If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after- October 31, 2007. If the permit renewal has not been issued by October 31, 2007, but a complete application for renewal has been submitted in accordance with the above deadlines, the existing permit will continue in force until the District takes final action on the renewal application.** (Regulation 2-6-307, 404.2, ~~407~~, & 409.6; MOP Volume II, Part 3, §4.2)
2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. (Regulation 2-6-307; MOP Volume II, Part 3, §4.11)

## **I. Standard Conditions**

3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)
4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
5. The filing of a request by the facility for a permit modification, revocation and re-issuance, or termination, or the filing of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
6. This permit does not convey any property rights of any sort, or any exclusive privilege. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
8. Any records required to be maintained pursuant to this permit which the permittee considers to contain proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District's Administrative Code. (Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
9. Proprietary or trade secret information provided to EPA will be subject to the requirements of 40 CFR Part 2, Subpart B - Public Information, Confidentiality of Business Information. (40 CFR Part 2)
10. The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions or the potential to emit for the time period stated and is included only as one means of determining applicable requirements for emission sources. It does not establish, or constitute a basis for establishing, any new emission limitations. (MOP Volume II, Part 3, §4.11)
11. The responsible official shall certify all documents submitted by the facility pursuant to the major facility review permit. The certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. The certifications shall be signed by a responsible official for the facility. (MOP Volume II, Part 3, §4.11)

## **C. Requirement to Pay Fees**

The permit holder shall pay annual fees in accordance with District Regulation 3, including Schedule P. (Regulation 2-6-402 & 409.13, Regulation 3; MOP Volume II, Part 3, §4.12)

## **I. Standard Conditions**

### **D. Inspection and Entry**

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment which is subject to this permit to the APCO and/or to his or her designee. (Regulation 1-440, Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

### **E. Records**

1. The permit holder must provide any information, records, and reports requested or specified by the APCO. (Regulation 1-441, Regulation 2-6-409.4)
2. Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of creation of the record. (Regulation 2-6-501, Regulation 3; MOP Volume II, Part 3, §4.7)

### **F. Monitoring Reports**

Reports of all required monitoring must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting. The first reporting period for this permit shall be November 26, 2002 to December 31, 2002. The report shall be submitted by January 31, 2003. Subsequent reports shall be for the following periods: January 1<sup>st</sup> through June 30<sup>th</sup> and July 1<sup>st</sup> through December 31<sup>st</sup>, and are due on the last day of the month after the end of the reporting period (July 31<sup>st</sup> and January 31<sup>st</sup>, respectively). All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent to the following address:

Director of Compliance and Enforcement  
Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, CA 94109  
Attn: Title V Reports

(Regulation 2-6-502, Regulation 3; MOP Volume II, Part 3, §4.7)

## **I. Standard Conditions**

### **G. Compliance Certification**

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The first certification period will be from November 26, 2002 to June 30, 2003. Each subsequent certification period will be July 1st to June 30<sup>th</sup>. The certification shall be submitted by July 31st of each year. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other specific information required by the permit. The permit holder may satisfy this requirement through submittal of District-generated Compliance Certification forms. The certification should be directed to the District's Compliance and Enforcement Division at the address above, and a copy of the certification shall be sent to the Environmental Protection Agency at the following address:

Director of the Air Division  
USEPA, Region IX  
75 Hawthorne Street  
San Francisco, CA 94105  
Attention: Air-3

(MOP Volume II, Part 3, §4.5 and 4.15)

### **H. Emergency Provisions**

1. The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with Regulation 1-433. (MOP Volume II, Part 3, §4.8)
2. The permit holder may seek relief from enforcement action for a violation of any of the terms and conditions of this permit by applying to the District's Hearing Board for a variance pursuant to Health and Safety Code Section 42350. The Hearing Board will determine after notice and hearing whether variance relief should be granted in accordance with the procedures and standards set forth in Health and Safety Code Section 42350 et seq. (MOP Volume II, Part 3, §4.8)
3. The granting by the District of breakdown relief or the issuance by the Hearing Board of a variance will not provide relief from federal enforcement. (MOP Volume II, Part 3, §4.8)

## **I. Standard Conditions**

### **I. Severability**

In the event that any provision of this permit is invalidated by a court or tribunal of competent jurisdiction, or by the Administrator of the EPA, all remaining portions of the permit shall remain in full force and effect. (Regulation 2-6-409.5; MOP Volume II, Part 3, §4.10)

### **J. Miscellaneous Conditions**

1. The maximum capacity for each source as shown in Table II-A is the maximum allowable capacity. Exceedance of the maximum allowable capacity for any source is a violation of Regulation 2, Rule 1, Section 301. (Regulation 2-1-301)

## II. EQUIPMENT

**Table II A - Permitted Sources**

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S-#	Description	Make or Type	Model	Capacity
S-1	Hillside Landfill, Active Solid Waste Disposal Site with Active Gas Collection System	Types of waste accepted are construction and demolition debris and green waste (no putrescible wastes).		Max. Design Capacity = 9.380 E6 yd <sup>3</sup> (7.172 E6 m <sup>3</sup> ) Max. Acceptance Rate = 400 tons/day Max. Cumulative Waste In Place = 5.028 E6 tons
	Landfill gas collection system	Horizontal Collectors Vertical Wells		<del>67</del> collectors and 36 wells

**Table II B – Abatement Devices**

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
A-2	Landfill Gas Flare, <b>burning propane (during start-up only) and landfill gas, 26.4 MM BTU/hour</b>	S-1	BAAQMD 8-34-301.3, see also Table IV-A	Minimum combustion zone temperature of: 1400 °F <b>(3-hour average), until [MFR Permit Revision Date], and Effective [MFR Permit Revision Date] 1500 °F (3-hour average)</b> see also Table VII-A	<del>98% destruction of THC and VOC</del> Either 98% destruction of NMOC or < 30 ppmv of NMOC, as CH <sub>4</sub> , at 3% O <sub>2</sub> , dry, <b>see also Table VII-A</b>



### III. GENERALLY APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP rules and regulations and other federal requirements cited below. These requirements apply in a general manner to the facility and/or to sources exempt from the requirement to obtain a District Permit to Operate. The District has determined that these requirements will not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more sources, the requirement and the source are also included in Section IV, Source-Specific Applicable Requirements, of this permit. **This section also contains provisions that may apply to temporary sources.**

The dates in parentheses in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s): The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP: The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full language of SIP requirements is on EPA Region 9's website. The address is included in Section XII of this permit.

**NOTE:**

There are differences between the current BAAQMD rules and the versions of the rules in the SIP. All sources must comply with both versions of a rule until US EPA has reviewed and approved the District's revision of the regulation.

**Table III**  
**Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (5/2/01)	N
SIP Regulation 1	General Provisions and Definitions ( <del>86/278</del> /99)	Y <sup>1</sup>
BAAQMD Regulation 2, Rule 1	General Requirements (8/1/01)	N
BAAQMD 2-1-429	Federal Emissions Statement (6/7/95)	Y
SIP Regulation 2, Rule 1	General Requirements ( <del>81/276</del> /99)	Y <sup>1</sup>
BAAQMD Regulation 5	Open Burning ( <del>11/2/94</del> 3/6/02)	<del>Y</del> N

### III. Generally Applicable Requirements

**Table III**  
**Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
<b>SIP Regulation 5</b>	<b>Open Burning (9/4/98)</b>	<b>Y<sup>1</sup></b>
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)	Y
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y
BAAQMD Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (6/15/94)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings ( <del>12/11/201</del> /9501)	<del>Y</del> N
BAAQMD Regulation 8, Rule 4	Organic compounds - General Solvent and Surface Coating Operations ( <del>5</del> 10/156/9602)	<del>N</del> Y
<del>SIP Regulation 8, Rule 4</del>	<del>Organic compounds – General Solvent and Surface Coating Operations (12/23/97)</del>	<del>Y</del>
<b>BAAQMD Regulation 8, Rule 15</b>	<b>Organic Compounds – Emulsified and Liquid Asphalts (6/1/94)</b>	<b>Y</b>
<b>BAAQMD Regulation 8, Rule 16</b>	<b>Organic Compounds – Solvent Cleaning Operations (10/16/02)</b>	<b>Y</b>
<b>BAAQMD Regulation 8, Rule 40</b>	<b>Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (12/15/99)</b>	<b>Y</b>
<b>BAAQMD 8-40-116</b>	<b>Exemption, Small Volume</b>	<b>Y</b>
<b>BAAQMD 8-40-117</b>	<b>Exemption, Accidental Spills</b>	<b>Y</b>
<b>BAAQMD Regulation 8, Rule 47</b>	<b>Organic Compounds – Air Stripping and Soil Vapor Extraction Operations (6/15/94)</b>	<b>Y</b>
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y <sup>1</sup>
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products ( <del>12/20/95</del> 7/17/02)	N
<b>SIP Regulation 8, Rule 51</b>	<b>Organic Compounds - Adhesive and Sealant Products (2/26/02)</b>	<b>Y<sup>1</sup></b>
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)</b>	<b>N</b>
<b>SIP Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants - Sulfur Dioxide (6/8/99)</b>	<b>Y<sup>1</sup></b>
BAAQMD Regulation 11, Rule 1	Hazardous Pollutants – Lead (3/17/82)	N
<b>SIP Regulation 11, Rule 1</b>	<b>Hazardous Pollutants – Lead (9/2/81)</b>	<b>Y<sup>1</sup></b>

### III. Generally Applicable Requirements

**Table III**  
**Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (120/47/948)	<del>Y</del> N
BAAQMD Regulation 11, Rule 14	Hazardous Pollutants - Asbestos Containing Serpentine (7/17/91)	<del>Y</del> N
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	N
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (9/2/81)	Y <sup>1</sup>
California Code of Regulations Title 17, Section 93105	Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations (7/26/01)	N
California Code of Regulations Title 17, Section 93106	Asbestos Airborne Toxic Control Measure for Asbestos-Containing Serpentine (7/20/00)	N
California Health and Safety Code Section 41750 et seq.	Portable Equipment	N
California Health and Safety Code Section 44300 et seq.	Air Toxics "Hot Spots" Information and Assessment Act of 1987	N
40 CFR Part 61, Subpart A	National Emission Standards for Hazardous Air Pollutants – General Provisions (5/28/03)	Y
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95)	Y

1. This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

#### IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP rules and regulations and other federal requirements cited below. The requirements cited in the following tables apply in a specific manner to the indicated source(s).

The dates in parentheses in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s): The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP: The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. The full language of SIP requirements is on EPA Region 9's website. The address is included in Section XII of this permit. All other text may be found in the regulations themselves.

**Table IV – A**  
**Source-Specific Applicable Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (10/7/1998)</b>		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	
1-523.2	Limit on duration of inoperation	Y	
1-523.3	Reporting requirement for violations of any applicable limits	Y	
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (5/2/01)</b>		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	
1-523.2	Limit on duration of inoperation	Y	
1-523.3	Reporting requirement for violations of any applicable limits	N	

## IV. Source Specific Applicable Requirements

**Table IV – A**  
**Source-Specific Applicable Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>1-523.4</b>	<b>Records of inoperation, tests, calibrations, adjustments, &amp; maintenance</b>	<b>Y</b>	
<b>1-523.5</b>	<b>Maintenance and calibration</b>	<b>N</b>	
<b>SIP Regulation 1</b>	<b>General Provisions and Definitions (6/28/99)</b>		
<b>1-523</b>	<b>Parametric Monitoring and Recordkeeping Procedures</b>	<b>Y<sup>1</sup></b>	
<b>1-523.3</b>	<b>Reports of Violations</b>	<b>Y<sup>1</sup></b>	
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/19/<del>1990</del>)</b>		
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particle Weight Limitation (applies to A-2 Landfill Gas Flare only)	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Regulation 8, Rule 2</b>	<b>Organic Compounds – Miscellaneous Operations (<del>3/22/1995</del>6/15/94)</b>		
8-2-301	Miscellaneous Operations (applies to low VOC soil handling and disposal activities only)	Y	
<b>BAAQMD Regulation 8, Rule 34</b>	<b>Organic Compounds – Solid Waste Disposal Sites (10/6/<del>1999</del>)</b>		
8-34-113	Limited Exemption, Inspection and Maintenance	Y	
8-34-113.1	Emission Minimization Requirement	Y	
8-34-113.2	Shutdown Time Limitation	Y	
8-34-113.3	Recordkeeping Requirement	Y	
8-34-116	Limited Exemption, Well Raising	Y	
8-34-116.1	New Fill	Y	
8-34-116.2	Limits on Number of Wells Shutdown	Y	
8-34-116.3	Shutdown Duration Limit	Y	
8-34-116.4	Capping Well Extensions	Y	
8-34-116.5	Well Disconnection Records	Y	
8-34-117	Limited Exemption, Gas Collection System Components	Y	
8-34-117.1	Necessity of Existing Component Repairs/Adjustments	Y	
8-34-117.2	New Components are Described in Collection and Control System Design Plan	Y	
8-34-117.3	Meets Section 8-34-118 Requirements	Y	

## IV. Source Specific Applicable Requirements

**Table IV – A**  
**Source-Specific Applicable Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-117.4	Limits on Number of Wells Shutdown	Y	
8-34-117.5	Shutdown Duration Limit	Y	
8-34-117.6	Well Disconnection Records	Y	
8-34-118	Limited Exemption, Construction Activities	Y	
8-34-118.1	Construction Plan	Y	
8-34-118.2	Activity is Required to Maintain Compliance with this Rule	Y	
8-34-118.3	Required or Approved by Other Enforcement Agencies	Y	
8-34-118.4	Emission Minimization Requirement	Y	
8-34-118.5	Excavated Refuse Requirements	Y	
8-34-118.6	Covering Requirements for Exposed Refuse	Y	
8-34-118.7	Installation Time Limit	Y	
8-34-118.8	Capping Required for New Components	Y	
8-34-118.9	Construction Activity Records	Y	
8-34-301	Landfill Gas Collection and Emission Control System Requirements	Y	
8-34-301.1	Continuous Operation	Y	
8-34-301.2	Collection and Control Systems Leak Limitations	Y	
8-34-301.3	Limits for Enclosed Flares	Y	
8-34-303	Landfill Surface Requirements	Y	
8-34-304	Gas Collection System Installation Requirements	Y	
8-34-304.1	Based on Waste Age For Inactive or Closed Areas	Y	
8-34-304.2	Based on Waste Age For Active Areas	Y	
8-34-304.3	Based on Amount of Decomposable Waste Accepted	Y	
8-34-304.4	Based on NMOC Emission Rate	Y	
8-34-305	Wellhead Requirements	Y	
8-34-305.1	Operate Under Vacuum	Y	
8-34-305.2	Temperature < 55 °C	Y	
8-34-305.3	Nitrogen < 20% or	Y	
8-34-305.4	Oxygen < 5%	Y	
8-34-405	Design Capacity Reports	Y	
8-34-408	Collection and Control System Design Plans	Y	
8-34-408.2	Sites With Existing Collection and Control Systems	Y	
8-34-411	Annual Report	Y	1/1/03
8-34-412	Compliance Demonstration Tests	Y	
8-34-413	Performance Test Report	Y	
8-34-414	Repair Schedule for Wellhead Excesses	Y	
8-34-414.1	Records of Excesses	Y	

## IV. Source Specific Applicable Requirements

**Table IV – A**  
**Source-Specific Applicable Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-414.2	Corrective Action	Y	
8-34-414.3	Collection System Expansion	Y	
8-34-414.4	Operational Due Date for Expansion	Y	
8-34-415	Repair Schedule for Surface Leak Excesses	Y	
8-34-415.1	Records of Excesses	Y	
8-34-415.2	Corrective Action	Y	
8-34-415.3	Re-monitor Excess Location Within 10 Days	Y	
8-34-415.4	Re-monitor Excess Location Within 1 Month	Y	
8-34-415.5	If No More Excesses, No Further Re-Monitoring	Y	
8-34-415.6	Additional Corrective Action	Y	
8-34-415.7	Re-monitor Second Excess Within 10 days	Y	
8-34-415.8	Re-monitor Second Excess Within 1 Month	Y	
8-34-415.9	If No More Excesses, No Further Re-monitoring	Y	
8-34-415.10	Collection System Expansion for Third Excess in a Quarter	Y	
8-34-415.11	Operational Due Date for Expansion	Y	
8-34-416	Cover Repairs	Y	
8-34-501	Operating Records	Y	
8-34-501.1	Collection System Downtime	Y	
8-34-501.2	Emission Control System Downtime	Y	
8-34-501.3	Continuous Temperature Records for Enclosed Combustors	Y	
8-34-501.4	Testing	Y	
8-34-501.6	Leak Discovery and Repair Records	Y	
8-34-501.7	Waste Acceptance Records	Y	
8-34-501.8	Non-decomposable Waste Records	Y	
8-34-501.9	Wellhead Excesses and Repair Records	Y	
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	Y	
8-34-501.12	Records Retention for 5 Years	Y	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Y	
8-34-504	Portable Hydrocarbon Detector	Y	
8-34-505	Well Head Monitoring	Y	
8-34-506	Landfill Surface Monitoring	Y	
8-34-507	Continuous Temperature Monitor and Recorded	Y	
8-34-508	Gas Flow Meter	Y	
8-34-510	Cover Integrity Monitoring	Y	

## IV. Source Specific Applicable Requirements

**Table IV – A**  
**Source-Specific Applicable Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/<del>1995</del>)</b>		
9-1-301	Limitations on Ground Level Concentrations (applies to A-2 Landfill Gas Flare only)	Y	
9-1-302	General Emission Limitations (applies to A-2 Landfill Gas Flare only)	Y	
<b>BAAQMD Regulation 9, Rule 2</b>	<b>Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/<del>1999</del>)</b>		
9-2-301	Limitations on Hydrogen Sulfide	N	
<b>40 CFR Part 60, Subpart A</b>	<b>Standards of Performance for New Stationary Sources – General Provisions (5/4/<del>1998</del>)</b>		
60.4(b)	Requires Submission of Requests, Reports, Applications, and Other Correspondence to the Administrator	Y	
60.7	Notification and Record Keeping	Y	
60.8	Performance Tests	Y	
60.11	Compliance with Standards and Maintenance Requirements	Y	
60.11(a)	Compliance determined by performance tests	Y	
60.11(d)	Control devices operated using good air pollution control practice	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.13(a)	Applies to all continuous monitoring systems	Y	
60.13(b)	Monitors shall be installed and operational before performing performance tests	Y	
60.13(e)	Continuous monitors shall operate continuously	Y	
60.13(f)	Monitors shall be installed in proper locations	Y	
60.13(g)	Requires multiple monitors for multiple stacks	Y	
60.14	Modification	Y	
60.15	Reconstruction	Y	
60.19	General Notification and Reporting Requirements	Y	
<b>40 CFR Part 60, Subpart Cc</b>	<b>Standards of Performance for New Stationary Sources – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (2/24/<del>1999</del>)</b>		



## IV. Source Specific Applicable Requirements

**Table IV – A**  
**Source-Specific Applicable Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.36c(a)	Collection and Control Systems in Compliance by 30 months after Initial NMOC Emission Rate Report Shows NMOC Emissions $\geq$ 50 MG/year	Y	
<b>40 CFR Part 62</b>	<b>Approval and Promulgation of State Plans for Designated Facilities and Pollutants (9/20/20016/9/03)</b>		
<b>62.1100</b>	<b>Identification of Plan</b>	<b>Y</b>	
62.1115	Identification of Sources	Y	
<b>40 CFR Part 63, Subpart A</b>	<b>National Emission Standards for Hazardous Air Pollutants: General Provisions (3/16/94)</b>		
<b>63.4</b>	<b>Prohibited activities and circumvention</b>	<b>Y</b>	
<b>63.5(b)</b>	<b>Requirements for existing, newly constructed, and reconstructed sources</b>	<b>Y</b>	
<b>63.6(e)</b>	<b>Operation and maintenance requirements and SSM Plan</b>	<b>Y</b>	
<b>63.6(f)</b>	<b>Compliance with non-opacity emission standards</b>	<b>Y</b>	
<b>63.10(b)(2) (i-v)</b>	<b>Records for startup, shutdown, malfunction, and maintenance</b>	<b>Y</b>	
<b>63.10(d)(5)</b>	<b>Startup, Shutdown, and Malfunction (SSM) Reports</b>	<b>Y</b>	
<b>40 CFR Part 63, Subpart AAAA</b>	<b>National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (1/16/03)</b>		
<b>63.1945</b>	<b>When do I have to comply with this subpart?</b>	<b>Y</b>	
<b>63.1945(b)</b>	<b>Compliance date for existing affected landfills</b>	<b>Y</b>	
<b>63.1955</b>	<b>What requirements must I meet?</b>	<b>Y</b>	
<b>63.1955(a)(2)</b>	<b>Comply with State Plan that implements 40 CFR Part 60, Subpart Cc</b>	<b>Y</b>	
<b>63.1955(b)</b>	<b>Comply with 63.1960-63.1985, if a collection and control system is required by 40 CFR Part 60, Subpart WWW or a State Plan implementing 40 CFR Part 60, Subpart Cc</b>	<b>Y</b>	
<b>63.1955(c)</b>	<b>Comply with all approved alternatives to standards for collection and control systems plus all SSM requirements and 6 month compliance reporting requirements</b>	<b>Y</b>	
<b>63.1960</b>	<b>How is compliance determined?</b>	<b>Y</b>	
<b>63.1965</b>	<b>What is a deviation?</b>	<b>Y</b>	

## IV. Source Specific Applicable Requirements

**Table IV – A**  
**Source-Specific Applicable Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>63.1975</b>	<b>How do I calculate the 3-hour block average used to demonstrate compliance?</b>	<b>Y</b>	
<b>63.1980</b>	<b>What records and reports must I keep and submit?</b>	<b>Y</b>	
<b>63.1980(a)</b>	<b>Comply with all record keeping and reporting requirements in 40 CFR Part 60, Subpart WWW or the State Plan implementing 40 CFR Part 60, Subpart Cc, except that the annual report required by 40 CFR 60.757(f) must be submitted every 6 months</b>	<b>Y</b>	
<b>63.1980(b)</b>	<b>Comply with all record keeping and reporting requirements in 40 CFR Part 60, Subpart A and 40 CFR Part 63, Subpart A, including SSM Plans and Reports</b>	<b>Y</b>	
<b>BAAQMD Condition # 16884</b>			
Part 1	Design capacity and waste acceptance rate limits (Regulation 2-1-234.3 and 2-1-301)	Y	
Part 2	Acceptance criteria for soils containing VOCs (Regulation 8-40-301)	N	
Part 3	Emission limit for low VOC soils (Regulation 8-2-301)	Y	
Part 4	Watering requirements for work areas and roads (Regulations 6-301 and 6-305)	Y	
Part 5	Landfill gas collection system description (Regulations 2-1-301, 8-34-301.1, 8-34-303, 8-34-304, and 8-34-305 )	Y	
Part 6	Landfill gas collection system operating requirements (Regulation 8-34-301.1)	Y	
Part 7	Alternative wellhead requirements (Regulations 8-34-305 and 8-34-414)	Y	
Part 8	Control requirements for collected landfill gas (Regulation 8-34-301)	Y	
Part 9	Heat Input Limits for A-2 Landfill Gas Flare (Regulation 2-1-301)	Y	
Part 10	NOx Emission Limit for A-2 Landfill Gas Flare (Regulation 2-1-301)	Y	
Part 11	CO Emission Limit for A-2 Landfill Gas Flare (Regulation 2-1-301)	Y	
Part 12	Combustion Zone Temperature Limit for A-2 Landfill Gas Flare (Regulation 8-34-301.3 and Toxic Risk Management Policy)	Y	
Part 13	Flow Meter Requirement for A-2 Landfill Gas Flare (Regulations 8-34-301, 8-34-501.10, and 8-34-508)	Y	
Part 14	Alarm Requirements for A-2 Landfill Gas Flare (Regulation 8-34-301)	Y	
Part 15	Landfill gas sulfur content limit and monitoring requirements (Regulation 9-1-302)	Y	
Part 16	Annual source test (Regulations 2-1-301, 8-34-301.3, and 8-34-412)	Y	

#### IV. Source Specific Applicable Requirements

**Table IV – A**  
**Source-Specific Applicable Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 17	Annual landfill gas characterization test (Toxic Risk Management Policy and <del>Regulation 8-34-412</del> <b>AB-2588 Air Toxics Hot Spots Act</b> )	<del>Y</del>	<del>N</del>
Part 18	Record keeping requirements (Regulations 2-1-301, 2-6-501, 6-301, 6-305, 8-2-301, 8-34-301, 8-34-304, and 8-34-501)	Y	
<b>Part 19</b>	<b>Reporting periods and report submittal due dates for the Regulation 8, Rule 34 report (Regulation 8-34-411 and 40 CFR 63.1980(a))</b>	<b>Y</b>	

- This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved the District's revision of the regulation.**

## **V. SCHEDULE OF COMPLIANCE**

The permit holder shall comply with all applicable requirements cited in this permit. The permit holder shall also comply with applicable requirements that become effective during the term of this permit on a timely basis.

## VI. PERMIT CONDITIONS

Any condition that is preceded by an asterisk is not federally enforceable.

### **Condition # 16884**

#### **FOR: S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

1. The Permit Holder shall comply with the following waste acceptance and disposal limits and shall obtain the appropriate New Source Review permit, if one of the following limits is exceeded:
  - a. Total waste accepted and placed at the landfill shall not exceed 400 tons in any day. (Basis: Regulation 2-1-301)
  - b. The total cumulative amount of all waste placed in the landfill shall not exceed 5.028 million tons. Exceedance of the cumulative tonnage limit is not a violation of the permit and does not trigger the requirement to obtain a New Source review permit, if the operator can, within 30 days of the date of discovery of the exceedance, provide documentation to the District demonstrating, in accordance with BAAQMD Regulation 2-1-234.3, that the limit should be higher. (Basis: Regulation 2-1-234.3)
  - c. The maximum design capacity of the landfill (total volume of all wastes and cover materials placed in the landfill, excluding final cover) shall not exceed 9.380 million cubic yards. (Basis: Regulation 2-1-301)
- \*2. This facility is not subject to Regulation 8, Rule 40 because the landfill does not accept contaminated soil (soil containing more than 50 ppmw of volatile organic compounds, VOCs). The following types of materials may be accepted:
  - a. Materials for which the Permit Holder has appropriate documentation demonstrating that either the organic content of the soil or the organic concentration above the soil is below the "contaminated" level (as defined in Regulation 8, Rule 40, Sections 205, 207, and 211).
  - b. Materials for which the Permit Holder lacks documentation to prove that soil is not contaminated, but source of the soil is known and there is no reason to suspect that the soil might contain organic compounds.
  - c. Materials which the Permit Holder plans to test in order to determine the VOC contamination level in the soil, provided that the material is sampled within 24 hours of receipt by this site and is handled as if the soil were contaminated until the Permit Holder receives the test results. The Permit Holder shall collect soil samples in accordance with Regulation 8-40-601. The organic content of the collected soil samples shall be determined in accordance with Regulation 8-40-602.

## VI. Permit Conditions

### Condition # 16884

#### FOR: S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE

- i. If the test results indicate that the soil is contaminated or if the soil was not sampled within 24 hours of receipt by the facility, the Permit Holder must continue to handle the soil in accordance with Regulation 8, Rule 40, until the soil has been removed from this site or has completed treatment. Storing soil in a temporary stockpile or pit is not considered treatment. Co-mingling, blending, or mixing of soil lots is not considered treatment.
- ii. If the test results indicate that the soil, as received at this site, has an organic content of 50 ppmw or less, then the soil need not be handled in accordance with Regulation 8, Rule 40 any longer.

(Basis: Regulation 8-40-301)

3. The Permit Holder shall limit the quantity of low VOC soil (soil that contains 50 ppmw or less of VOCs) disposed of per day so that no more than 15 pounds of total carbon could be emitted to the atmosphere per day. In order to demonstrate compliance with this condition, the Permit Holder shall maintain the following records in a District approved log.
  - a. Record on a daily basis the amount of low VOC soil disposed of in the landfill or used as cover material in the landfill. This total amount (in pounds per day) is Q in the equation in subpart c. below.
  - b. Record on a daily basis the VOC content of all low VOC soils disposed of or used as cover material. This VOC Content (C in the equation below) should be expressed as parts per million by weight as total carbon.
  - c. Calculate and record on a daily basis the VOC Emission Rate (E) using the following equation:

$$E = Q * C / 10^6$$

(Basis: Regulation 8-2-301)

4. A water truck shall be kept on site during all hours of operation. Working areas and any unpaved or dusty access roads shall be wetted to minimize fugitive dust emissions. (Basis: Regulations 6-301 and 6-305)
5. The Permit Holder shall apply for and receive an Authority to Construct before modifying the landfill gas collection system described in subpart a. below. Increasing or decreasing the number of wells or collectors, or significantly changing the length of collectors or the locations of wells or collectors are all considered to be modifications that are subject to the Authority to Construct requirement.

## VI. Permit Conditions

### Condition # 16884

#### FOR: S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE

- a. The Permit Holder has been issued a Permit to Operate for the landfill gas collection system components listed below. Well and collector locations, depths, and lengths are as described in detail in Permit Application #2370.

<u>Area Description</u>	<u>Required Components</u>
Parcels 1, 2, and 3	36 vertical wells
Parcels 1, 2, and 3	67 horizontal collectors

(Basis: Regulations 2-1-301, 8-34-301.1, 8-34-303, 8-34-304, and 8-34-305)

6. The landfill gas collection system described above in Part 5a shall be operated continuously. Wells shall not be disconnected or removed, and isolation or adjustment valves shall not be closed, without prior written authorization from the APCO, unless the Permit Holder complies with all applicable provisions of Regulation 8, Rule 34, Sections 113, 116, 117, and 118. (Basis: Regulation 8-34-301.1)
7. Effective July 1, 2002, the landfill gas collection system components described above in Part 5a shall be operated in accordance with Regulation 8-34-305, except that the landfill gas temperature in the vertical wells may periodically exceed the 8-34-305.2 limit of 131 degrees F, provided that the landfill gas temperature does not exceed 140 degrees F and the oxygen content in each affected well is maintained at less than 5% by volume. The Permit Holder shall comply with Regulation 8-34-414 if any of the following events occur:
- a. The landfill gas temperature in a well exceeds 140 degrees F,
  - b. The landfill gas temperature in a well is between 131 degrees F and 140 degrees F, and the oxygen content is greater than 5% by volume,
  - c. Any single well has a landfill gas temperature of 131 degrees or higher for three or more consecutive months.
- (Basis: Regulations 8-34-305 and 8-34-414)
8. All collected landfill gas shall be vented to the A-2 Landfill Gas Flare, which shall be properly operated and maintained. Raw landfill gas shall not be vented to the atmosphere, except for unavoidable landfill gas emissions that occur during collection system installation, maintenance, or repair, which is performed in compliance with Regulation 8, Rule 34, Sections 113, 116, 117, or 118, and inadvertent component or surface leaks that do not exceed the limits specified in 8-34-301.2 or 8-34-303. (Basis: Regulation 8-34-301)

## VI. Permit Conditions

### Condition # 16884

#### FOR: S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE

9. The heat input to the A-2 Landfill Gas Flare shall not exceed 633.6 million BTU per day and shall not exceed 231,264 million BTU per year. In order to demonstrate compliance with this part, the Permit Holder shall calculate and record, on a monthly basis, the maximum daily and total monthly heat input to the flare based on: (a) the landfill gas flow rate recorded pursuant to Part 13, (b) the average methane concentration in the landfill gas based on the most recent source test, and (c) a high heating value for methane of 1013 BTU/ft<sup>3</sup> at 60 degrees F. (Basis: Regulation 2-1-301)
10. Nitrogen oxide (NO<sub>x</sub>) emissions from the A-2 Landfill Gas Flare shall not exceed 30 ppmv of NO<sub>x</sub>, corrected to 15% oxygen, dry basis. (Basis: Regulation 2-1-301)
11. Carbon monoxide (CO) emissions from the A-2 Landfill Gas Flare shall not exceed 208 ppmv of CO, corrected to 15% oxygen, dry basis. (Basis: Regulation 2-1-301)
12. ~~The minimum combustion zone temperature for the flare shall be equal to the average combustion zone temperature determined during the most recent complying source test minus 50 degrees F, provided that the minimum combustion zone temperature is not less than 1400 degrees F.~~ Effective ~~[date of issuance of the MFR Permit]~~ **November 26, 2002**, the combustion zone temperature of the flare shall be maintained at a minimum of 1400 degrees F, averaged over any 3-hour period. **Effective [date of issuance of this MFR Permit revision], the combustion zone temperature of the flare shall be maintained at a minimum of 1500 degrees F, averaged over any 3-hour period.** If a source test demonstrates compliance with all applicable requirements at a different temperature, the APCO ~~will~~ **may** revise this minimum temperature limit in accordance with the ~~administrative permit amendment~~ procedures identified in Regulation ~~2-6-413-2-6-414~~ **or 2-6-415, based on the following criteria. The minimum combustion zone temperature for the flare shall be equal to the average combustion zone temperature determined during the most recent complying source test minus 50 degrees F, provided that the minimum combustion zone temperature is not less than 1400 degrees F.** (Basis: Regulation 8-34-301.3 and Toxic Risk Management Policy)
13. A flow meter to measure gas flow into the flare shall be installed and maintained. (Basis: Regulations 8-34-301, 8-34-501.10, and 8-34-508)



## VI. Permit Conditions

### Condition # 16884

#### FOR: S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE

14. The flare shall be equipped with both local and remote alarm systems. (Basis: Regulation 8-34-301)
15. Total reduced sulfur compounds in the collected landfill gas shall be monitored as a surrogate for monitoring sulfur dioxide in control system's exhaust. The concentration of total reduced sulfur compounds in the collected landfill gas shall not exceed 1300 ppmv (dry). In order to demonstrate compliance with this part, the Permit Holder shall measure the total sulfur content in collected landfill gas on a quarterly basis using a draeger tube. The landfill gas sample shall be taken from the main landfill gas header. The Permit Holder shall follow the manufacturer's recommended procedures for using the draeger tube and interpreting the results. The Permit Holder shall conduct the first draeger tube test no later than 3 months after the issue date of the MFR Permit and quarterly thereafter. (Basis: Regulation 9-1-302)
16. In order to demonstrate compliance with Parts 10 and 11 above and Regulation 8, Rule 34, Sections 301.3 and 412, the Permit Holder shall ensure that a District approved source test is conducted annually on the Landfill Gas Flare (A-2). The annual source test shall determine the following:
  - a. landfill gas flow rate to the flare (dry basis);
  - b. concentrations (dry basis) of carbon dioxide (CO<sub>2</sub>), nitrogen (N<sub>2</sub>), oxygen (O<sub>2</sub>), ~~total hydrocarbons (THC)~~, methane (CH<sub>4</sub>), and total non-methane organic compounds (NMOC) in the landfill gas;
  - c. stack gas flow rate from the flare (dry basis);
  - d. concentrations (dry basis) of NO<sub>x</sub>, CO, SO<sub>2</sub>, ~~THC~~, CH<sub>4</sub>, NMOC, and O<sub>2</sub> in the flare stack gas;
  - e. ~~the THC, CH<sub>4</sub>, and~~ NMOC destruction efficiencies achieved by the flare; and
  - f. ~~the~~ average combustion zone temperature in the flare during the test period.

Annual source tests shall be conducted no earlier than 9 months and no later than 12 months after the previous source test. The Source Test Section of the District shall be contacted to obtain approval of the source test procedures at least 14 days in advance of each source test. The Source Test Section shall be notified of the scheduled test date at least 7 days in advance of each source test. The source test report shall be submitted to the Compliance and Enforcement Division and the Source Test Section within 45 days of the test date. (Basis: Regulations 2-1-301, 8-34-301.3, and 8-34-412)

## VI. Permit Conditions

### Condition # 16884

#### FOR: S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE

- \*17. The Permit Holder shall conduct a characterization of the landfill gas concurrent with the annual source test required by Part 16 above. The landfill gas sample shall be drawn from the main landfill gas header. In addition to the compounds listed in Part 16b, the landfill gas shall be analyzed for all the **organic** compounds listed ~~in the most recent version of EPA's AP-42 Table 2.4-1 below~~. All concentrations shall be reported on a dry basis. The test report shall be submitted to the Compliance and Enforcement Division within 45 days of the test date. ~~After conducting three annual landfill gas characterization tests, the Permit Holder may request to remove specific compounds from the list of compounds to be tested, if the compounds have not been detected, have no significant impact on the cancer risk determination for the site, and have no significant impact on the hazard index determination for the site.~~ (Basis: Toxic Risk Management Policy and **Regulation 8-34-412AB-2588 Air Toxics Hot Spots Act**)

#### Organic Compounds

acrylonitrile  
benzene  
benzyl chloride  
carbon tetrachloride  
chlorobenzene  
chlorodifluoromethane  
chloroethane  
chloroform  
1,1 dichloroethane  
1,1 dichlorethene  
1,2 dichloroethane  
1,4 dichlorobenzene  
dichlorodifluoromethane  
dichlorofluoromethane

#### Organic Compounds

ethylbenzene  
ethylene dibromide  
fluorotrichloromethane  
hexane  
isopropyl alcohol  
methyl ethyl ketone  
methylene chloride  
perchloroethylene  
toluene  
1,1,1 trichloroethane  
1,1,2,2 tetrachloroethane  
trichloroethylene  
vinyl chloride  
xylenes

18. In order to demonstrate compliance with the above conditions, the Permit Holder shall:
- Calculate and record the total amount of solid waste received at S-1 for each quarter and the average daily waste acceptance rate for each quarter using procedures approved by the County of San Mateo Health Services Agency.
  - Maintain all records required, pursuant to Part 3a-c.

## VI. Permit Conditions

### Condition # 16884

#### FOR: S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE

- c. Record of the dates, locations, and frequency per day of all watering activities on unpaved roads or active soil or fill areas. Record the dates, locations, and type of any dust suppressant applications. Record the dates and description of all paved roadway cleaning activities. All records shall be summarized on monthly basis.
- d. Record the initial operation date for each new landfill gas well and collector.
- e. Maintain an accurate map of the landfill, which indicates the locations of all refuse boundaries and the locations of all wells and collectors (using unique identifiers) that are required to be operating continuously pursuant to Part 5a. Any areas containing only non-decomposable waste shall be clearly identified. This map shall be updated at least once a year to indicate changes in refuse boundaries and to include any newly installed wells and collectors.
- f. Record the operating times and the landfill gas flow rate to the A-2 Landfill Gas Flare on a daily basis. Summarize these records on a monthly basis. Calculate and record the heat input to A-2, pursuant to Part 9.
- g. Maintain records of all test dates and test results performed to maintain compliance with Parts 15, 16, and 17 above or to maintain compliance with any applicable rule or regulation.

All records shall be maintained on site in a District approved logbook or shall be made readily available to District staff upon request for a period of at least 5 years from the date of entry. These record keeping requirements do not replace the record keeping requirements contained in any applicable rules or regulations. (Basis: Regulations 2-1-301, 2-6-501, 6-301, 6-305, 8-2-301, 8-34-301, 8-34-304, and 8-34-501)

- 19. The annual report required by BAAQMD Regulation 8-34-411 shall be submitted in two semi-annual increments. The reporting periods and report submittal due dates for the semi-annual increments of the Regulation 8-34-411 report and the MSW Landfill NESHAP report, which is required pursuant to 40 CFR Part 63.1980(a), shall be synchronized with the reporting periods and report submittal due dates for the semi-annual MFR Permit monitoring reports that are required by Section I.F of the MFR Permit for this site. A single report may be submitted to satisfy the requirements of Section I.F, Regulation 8-34-411, and 40 CFR Part 63.1980(a), provided that all items required by each applicable reporting requirement are included in the single report.**

## **VI. Permit Conditions**

**(Basis: Regulation 8-34-411 and 40 CFR Part 63.1980(a))**

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## VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any. The monitoring frequency column indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown using the following codes: annual (A), quarterly (Q), monthly (M), weekly (W), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Collection System Installation Dates	BAAQMD 8-34-304.1	Y		For Inactive/Closed Areas: collection system components must be installed and operating by 2 years + 60 days after initial waste placement	BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition # 16884, Parts 18d-e	P/E	Records
Collection System Installation Dates	BAAQMD 8-34-304.2	Y		For Active Areas: Collection system components must be installed and operating by 5 years + 60 days after initial waste placement	BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition # 16884, Parts 18d-e	P/E	Records
Collection System Installation Dates	BAAQMD 8-34-304.3	Y		For Any Uncontrolled Areas or Cells: collection system components must be installed and operating within 60 days after the uncontrolled area or cell accumulates 1,000,000 tons of decomposable waste	BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition # 16884, Parts 18d-e	P/E	Records

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gas Flow	BAAQMD 8-34-301 and 301.1	Y		Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system	BAAQMD 8-34-501.10 and 508	C	Gas flow meter and recorder (every 15 minutes)
Gas Flow	BAAQMD Condition # 16884, Parts 5, 6, 7, and 8	Y		Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system	BAAQMD Condition # 16884, Parts 13, 14, and 18d-f	P/C, E	Gas flow meter, flare alarms, and records of landfill gas flow rates, collection and control systems downtime, and collection system components
Collection and Control Systems Shutdown Time	BAAQMD 8-34-113.2	Y		240 hours/year nor 5 consecutive days	BAAQMD 8-34-501.1	P/D	Operating records
<b>Startup Shutdown or Mal-function Pro-cedures</b>	<b>40 CFR 63.6(e)</b>	<b>Y</b>		<b>Minimize Emissions by Implementing SSM Plan</b>	<b>40 CFR 63.1980(a-b)</b>	<b>P/E</b>	<b>Records (all occurrences , duration of each, corrective actions)</b>

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Periods of Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y		15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Operating records for all parametric monitors
Continuous Monitors	40 CFR 60.13(e)	Y		Requires Continuous Operation except for breakdowns, repairs, calibration, and required span adjustments	40 CFR 60.7(b)	P/D	Operating records for all continuous monitors
Wellhead Pressure	BAAQMD 8-34-305.1	Y		< 0 psig	BAAQMD 8-34-414, 501.9 and 505.1	P/M	Monthly inspection and records
Temperature of Gas at Wellhead	BAAQMD 8-34-305.2 and BAAQMD Condition # 16884, Part 7	Y		< 55 °C (131 °F) or ≤ 140 °F and < 5% O <sub>2</sub>	BAAQMD 8-34-414, 501.9 and 505.2	P/M	Monthly inspection and records
Gas Concentrations at Wellhead	BAAQMD 8-34-305.3 or 305.4	Y		N <sub>2</sub> < 20% <b>OR</b> O <sub>2</sub> < 5%	BAAQMD 8-34-414, 501.9 and 505.3 or 505.4	P/M	Monthly inspection and records
Well Shutdown Limits	BAAQMD 8-34-116.2	Y		No more than 5 wells at a time or 10% of total collection system, whichever is less	BAAQMD 8-34-116.5 and 501.1	P/D	Records
Well Shutdown Limits	BAAQMD 8-34-116.3	Y		24 hours per well	BAAQMD 8-34-116.5 and 501.1	P/D	Records

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Well Shutdown Limits	BAAQMD 8-34-117.4	Y		No more than 5 wells at a time or 10% of total collection system, whichever is less	BAAQMD 8-34-117.6 and 501.1	P/D	Records
Well Shutdown Limits	BAAQMD 8-34-117.5	Y		24 hours per well	BAAQMD 8-34-117.6 and 501.1	P/D	Records
TOC (Total Organic Compounds Plus Methane)	BAAQMD 8-34-301.2	Y		1000 ppmv as methane (component leak limit)	BAAQMD 8-34-501.6 and 503	P/Q	Quarterly inspection of collection and control system components with a portable analyzer and records
TOC	BAAQMD 8-34-303	Y		500 ppmv as methane at 2 inches above surface	BAAQMD 8-34-415, 416, 501.6, 506 and 510	P/M, Q, and E	Monthly visual inspection of cover, Quarterly inspection of surface with a portable analyzer, Reinspection times for leaking areas, and Records



## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Non-Methane Organic Compounds (NMOC)	BAAQMD 8-34-301.3	Y		98% removal by weight OR < 30 ppmv, dry basis @ 3% O <sub>2</sub> , expressed as methane (applies to A-2 Landfill Gas Flare only)	BAAQMD 8-34-412 and 8-34-501.4 and BAAQMD Condition # 16884, Part 16	P/A	Source tests and records
Temperature of Combustion Zone (CT)	BAAQMD Condition # 16884, Part 12	Y		CT ≥ 1400 °F, averaged over any 3-hour period, <b>until [MFR Permit Revision Date], and Effective [MFR Permit Revision Date]</b> <b>CT ≥ 1500 °F, averaged over any 3-hour period</b> (applies to A-2 Landfill Gas Flare only)	BAAQMD 8-34-501.3 and 507 <del>and SIP 8-34-501.3</del>	C	Temperature sensor and recorder (continuous)
Total Carbon	BAAQMD 8-2-301 and BAAQMD Condition # 16884, Part 3	Y		15 pounds/day or 300 ppm, dry basis (applies only to aeration of or use as cover soil of soil containing ≤ 50 ppmw of volatile organic compounds)	BAAQMD Condition # 16884, Parts 3 and 18b	P/D	Records
Volatile Organic Compounds	BAAQMD Condition # 16884, Part 2	N		Facility shall not accept soil containing more than 50 ppmw of VOC	BAAQMD Condition # 16884, Part 2	P/E	Records
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1 for < 3 minutes/hr (applies to S-1 Hillside Landfill)	BAAQMD Condition # 16884, Part 18c	P/E, M	Records of all site watering and road cleaning events

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1 for < 3 minutes/hr (applies to A-2 Landfill Gas Flare)	None	N	NA
FP	BAAQMD 6-310	Y		$\leq 0.15$ grains/dscf (applies to A-2 Landfill Gas Flare only)	None	N	NA
SO <sub>2</sub>	BAAQMD 9-1-301	Y		Property Line Ground Level Limits: $\leq 0.5$ ppm for 3 minutes and $\leq 0.25$ ppm for 60 min. and $\leq 0.05$ ppm for 24 hours (applies to A-2 Landfill Gas Flare only)	None	N	NA
SO <sub>2</sub>	BAAQMD Regulation 9-1-302	Y		$\leq 300$ ppm (dry basis) (applies to A-2 Landfill Gas Flare only)	BAAQMD Condition # 16884, Part 16	P/A	Source test
Total Sulfur Content in Landfill Gas	BAAQMD Condition # 16884, Part 15	Y		$\leq 1300$ ppmv	BAAQMD Condition # 16884, Part 15	P/Q	Sulfur analysis of landfill gas
H <sub>2</sub> S	BAAQMD 9-2-301	N		Property Line Ground Level Limits: $\leq 0.06$ ppm, averaged over 3 minutes and $\leq 0.03$ ppm, averaged over 60 minutes	None	N	NA
Amount of Waste Accepted	BAAQMD Condition # 16884, Part 1	Y		$\leq 400$ tons/day and $\leq 5,028,000$ tons (cumulative amount of all wastes) and $\leq 9,830,000$ yd <sup>3</sup> (cumulative amount of all wastes and cover materials)	BAAQMD Condition # 16884, Part 18a	P/Q	Records and calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1 HILLSIDE LANDFILL AND A-2 LANDFILL GAS FLARE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Heat Input	BAAQMD Condition # 16884, Part 9	Y		$\leq 633.6$ MM BTU per day and $\leq 231,264$ MM BTU per year	BAAQMD Condition # 16884, Parts 9 and 18f	P/D	Records
NO <sub>x</sub>	BAAQMD Condition # 16884, Part 10	Y		$\leq 30$ ppmv of NO <sub>x</sub> , corrected to 15% O <sub>2</sub> , dry	BAAQMD Condition # 16884, Part 16d	P/A	Source test
CO	BAAQMD Condition # 16884, Part 11	Y		$\leq 208$ ppmv of CO, corrected to 15% O <sub>2</sub> , dry	BAAQMD Condition # 16884, Part 16d	P/A	Source test

## VIII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally ~~referenced~~ **found** in Section 600 et seq. of the regulation. The following table indicates only the test methods associated with the emission limits ~~referenced~~ **included** in Section VII, Applicable Limits & Compliance Monitoring Requirements, of this permit.

**Table VIII  
Test Methods**

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulate; <b>or USEPA Method 5, Determination of Particulate Matter Emissions from Stationary Sources</b>
BAAQMD 8-2-301	Organic Compound Emission Limitation for Miscellaneous Operations	Manual of Procedures, Volume IV, ST-7, Organic Compounds; or EPA Reference Method 25 or 25A
BAAQMD 8-34-301.2	Collection and Control System Leak Limitations	EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD 8-34-301.3	Limits for Flares	Manual of Procedures, Volume IV, ST-7, Organic Compounds and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 18, 25, 25A, or 25C
BAAQMD 8-34-303	Landfill Surface Requirements	EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD 8-34-305.1	Wellhead Gauge Pressure	APCO Approved Device
BAAQMD 8-34-305.2	Wellhead Temperature	APCO Approved Device
BAAQMD 8-34-305.3	Wellhead Nitrogen	EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
BAAQMD 8-34-305.4	Wellhead Oxygen	EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
BAAQMD 8-34-412	Compliance Demonstration Test	EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, or Method 25C, Determination of Nonmethane Organic Compounds (NMOC) in MSW Landfill Gases
BAAQMD 9-1-301	Limitations on Ground Level Concentrations (SO <sub>2</sub> )	Manual of Procedures, Volume VI, Part 1, Ground Level Monitoring for Hydrogen Sulfide and Sulfur Dioxide

## VIII. Test Methods

**Table VIII**  
**Test Methods**

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 9-1-302	General Emission Limitation (SO <sub>2</sub> )	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling <del>or</del> <del>ST-19B, Total Sulfur Oxides, Integrated Sample</del>
BAAQMD 9-1-304	Fuel Sulfur Content	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oil
BAAQMD 9-2-301	Limitations on Hydrogen Sulfide	Manual of Procedures, Volume VI, Part 1, Ground Level Monitoring for Hydrogen Sulfide and Sulfur Dioxide
40 CFR 60.8	Performance Tests	EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, or Method 25C, Determination of Nonmethane Organic Compounds (NMOC) in MSW Landfill Gases
BAAQMD Condition # 16884, Part 2	Acceptance Criteria for Soils containing VOCs (VOC determination)	BAAQMD 8-40-601 and EPA Reference Methods 8015B and 8021B; or EPA Reference Method 21
BAAQMD Condition # 16884, Part 3	Emission Limit for Low VOC Soils	BAAQMD 8-40-601 and EPA Reference Methods 8015B and 8021B; or EPA Reference Method 21 and APCO Approved Calculation Procedure Described in BAAQMD Condition # 16884, Part 3
BAAQMD Condition # 16884, Part 9	Heat Input Limits for Flare	APCO approved gas flow meter and APCO approved calculation procedure described in BAAQMD Condition # 16884, Part 9
BAAQMD Condition # 16884, Part 10	NO <sub>x</sub> Emission Limit for Flare	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD Condition # 16884, Part 11	CO Emission Limit for Flare	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD Condition # 16884, Part 12	Combustion Zone Temperature Limit for Flare	APCO Approved Device
BAAQMD Condition # 16884, Part 15	Landfill Gas Sulfur Content Limit	Draeger Tube: used in accordance with manufacturer's recommended procedures

## VIII. Test Methods

**Table VIII**  
**Test Methods**

Applicable Requirement	Description of Requirement	Acceptable Test Methods
<b>BAAQMD Condition # 16884, Part 16</b>	<b>Annual Source Test at Flare</b>	<b>Flare Outlet: Manual of Procedures, Volume IV, ST-17, Stack Gas Velocity and Volumetric Flow Rate; ST-23 Water Vapor; ST-14, Oxygen, Continuous Sampling; ST-13A, Oxides of Nitrogen, Continuous Sampling; ST-6, Carbon Monoxide, Continuous Sampling; and Manual of Procedures, Volume IV, ST-7, Organic Compounds or EPA Reference Methods 18, 25, 25A, or 25C; Flare Inlet: EPA Reference Method 3C</b>
<b>BAAQMD Condition # 16884, Part 17</b>	<b>Annual Landfill Gas Characterization Test</b>	<b>EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography</b>

## **IX. PERMIT SHIELD**

**Not applicable**

## **X. REVISION HISTORY**

**Title V Permit Issuance (Application 2615):**

**November 26, 2002**

**Reopening (Application 10392):**

**[insert approval date]**

- **Correct contact and APOC information on the title page.**
- **Update standard language in Sections I, III, and VIII.**
- **Correct regulatory references and amendment dates in Section I, Table III, and Table IV-A.**
- **Add new SIP rules and delete obsolete SIP rules from Tables III, IV-A, and VII-A.**
- **Add several recently identified generally applicable regulations to Table III.**
- **Delete future effective dates that have passed from Table IV-A.**
- **Add NESHAP General Provisions and MSW Landfill requirements to Tables IV-A and VII-A.**
- **Clarify an equation in Condition # 16884, Part 3.**
- **Correct the number of horizontal collectors in Condition # 16884, Part 5a and Table II-A.**
- **Revise the minimum flare combustion zone temperature limit in Condition # 16884, Part 12, and correct effective dates. Correct Tables II-B and VII-A accordingly. Also, revise text in Part 12 for consistency with current revision procedures.**
- **Delete the Condition # 16884, Part 16 requirement to test the landfill gas and flare exhaust for THC, because this requirement is obsolete. Correct Table II-B accordingly.**
- **Clarify Condition # 16884, Part 17 by specifically listing the organic compounds requiring analysis instead of referring to the AP-42 table. Add the AB-2588 Hot Spots Act to the basis of Part 17, and correct this basis in Table IV-A.**
- **Revise Condition # 16884 and Table IV-A by adding Part 19, which requires semi-annual reports pursuant to the new NESHAP requirements and allows these reports to be combined with the Title V semi-annual monitoring reports.**
- **In Table VIII, add an EPA test method for particulate matter, delete an obsolete test method for sulfur**



## **X. Revision History**

**dioxide, and add the missing test methods for Condition  
# 16884, Parts 16 and 17.**

## **X. Revision History**

- **Add Section X Revision History and revise subsequent section numbers.**
- **Add and correct several terms in Section XI Glossary.**

**X.XI.**

**GLOSSARY**

**ACT**

Federal Clean Air Act

**APCO**

Air Pollution Control Officer: Head of Bay Area Air Quality Management District

**ARB**

Air Resources Board

**BAAQMD**

Bay Area Air Quality Management District

**BACT**

Best Available Control Technology

**BARCT**

**Best Available Retrofit Control Technology**

**Basis**

The underlying authority which allows the District to impose requirements.

**CAA**

The federal Clean Air Act

**CAAQS**

California Ambient Air Quality Standards

**CALCO**

Cypress Amloc Land Company

**CAPCOA**

California Air Pollution Control Officers Association

**CARB**

**California Air Resources Board (same as ARB)**

**CEQA**

California Environmental Quality Act

**CEM**

**A "continuous emission monitor" is a monitoring device that provides a continuous direct measurement of some pollutant (e.g. NOx concentration) in an exhaust stream.**

## **XI. Glossary**

### **CFR**

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

### **CH<sub>4</sub> or CH<sub>4</sub>**

Methane

### **CO**

Carbon Monoxide

### **CO<sub>2</sub> or CO<sub>2</sub>**

**Carbon Dioxide**

### **CT**

**Combustion Zone Temperature**

### **Cumulative Increase**

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

### **District**

The Bay Area Air Quality Management District

### **E 6**

**Very large or very small number values are commonly expressed in a form called scientific notation, which consists of a decimal part multiplied by 10 raised to some power. For example, 4.53 E 6 equals  $(4.53) \times (10^6) = (4.53) \times (10 \times 10 \times 10 \times 10 \times 10 \times 10) = 4,530,000$ . Scientific notation is used to express large or small numbers without writing out long strings of zeros.**

### **EG**

Emission Guidelines

### **EO**

**Executive Order**

### **EPA**

The federal Environmental Protection Agency.

### **Excluded**

Not subject to any District regulations.

## **XI. Glossary**

### **Federally Enforceable, FE**

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (MACT), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

### **FP**

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

### **FR**

**Federal Register**

### **GDF**

**Gasoline Dispensing Facility**

### **GLM**

**Ground Level Monitor**

### **H<sub>2</sub>S or H<sub>2</sub>S**

Hydrogen Sulfide

### **HAP**

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR Part 63.

### **Hg**

**Mercury**

### **HHV**

**Higher Heating Value. The quantity of heat evolved as determined by a calorimeter where the combustion products are cooled to 60 °F and all water vapor is condensed to liquid.**

### **LFG**

Landfill gas

### **LHV**

**Lower Heating Value. Similar to the higher heating value (see HHV) except that the water produced by the combustion is not condensed but retained as vapor at 60 °F.**

## **XI. Glossary**

### **Major Facility**

A facility with potential emissions of: (1) at least 100 tons per year of **any** regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

### **MAX or Max.**

Maximum

### **MFR**

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

### **MIN or Min.**

Minimum

### **MOP**

The District's Manual of Procedures.

### **MSDS**

**Material Safety Data Sheet**

### **MSW**

Municipal solid waste

### **MW**

Molecular weight

### **N2 or N<sub>2</sub>**

**Nitrogen**

### **NA**

**Not Applicable**

### **NAAQS**

National Ambient Air Quality Standards

### **NESHAPS**

National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

### **NMHC**

Non-methane Hydrocarbons (Same as NMOC)

## **XI. Glossary**

### **NMOC**

Non-methane Organic Compounds (Same as NMHC)

### **NO<sub>x</sub> or NO<sub>x</sub>**

Oxides of nitrogen.

### **NSPS**

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

### **NSR**

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

### **O<sub>2</sub> or O<sub>2</sub>**

Oxygen

### **Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>.

### **Phase II Acid Rain Facility**

A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

### **POC**

Precursor Organic Compounds

### **PM**

Particulate Matter

### **PM<sub>10</sub> or PM<sub>10</sub>**

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

### **PSD**

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

## **XI. Glossary**

**PV or P/V Valve**  
**Pressure / Vacuum Valve**

**RMP**  
**Risk Management Plan**

**S**  
**Sulfur**

**SIP**  
State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

**SO<sub>2</sub> or SO<sub>2</sub>**  
Sulfur dioxide

**SSM**  
**Startup, Shutdown, or Malfunction**

**SSM Plan**  
**A plan, which states the procedures that will be followed during a startup, shutdown, or malfunction, that is prepared in accordance with the general NESHAP provisions (40 CFR Part 63, Subpart A) and maintained on site at the facility.**

**THC**  
Total Hydrocarbons (NMHC + Methane)

**Title V**  
Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

**TOC**  
Total Organic Compounds (NMOC + Methane, Same as THC)

**TPH**  
Total Petroleum Hydrocarbons

**TRMP**  
Toxic Risk Management Plan



## **XI. Glossary**

### **TRS**

Total Reduced Sulfur

### **TSP**

Total Suspended Particulate

### **VOC**

Volatile Organic Compounds

### **Symbols:**

<	=	less than
>	=	greater than
≤	=	less than or equal to
≥	=	greater than or equal to

### **Units of Measure:**

<b>bbl</b>	=	<b>barrel of liquid (1 bbl = 42 gallons)</b>
bhp	=	brake-horsepower
btu	=	British Thermal Unit
BTU	=	British Thermal Unit
°C	=	degrees Centigrade
cfm	=	cubic feet per minute
dscf	=	dry standard cubic feet
°F	=	degrees Fahrenheit
ft <sup>3</sup>	=	cubic feet
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
gr	=	grains ( <b>7000 grains = 1 pound</b> )
hp	=	horsepower
hr	=	hour
lb	=	pound
lbmol	=	pound-mole
in	=	inches
<b>kg</b>	=	<b>kilograms</b>
<b>M</b>	=	<b>thousand</b>
m <sup>2</sup>	=	square meter
m <sup>3</sup>	=	cubic meters
<b>Mg</b>	=	<b>mega-grams, 1000 kilograms</b>
min	=	minute

## XI. Glossary

mm	=	millimeter
MM	=	million
MM BTU	=	million BTU
MM cf	=	million cubic feet
<b>mm Hg</b>	=	<b>millimeters of mercury (pressure)</b>
<del>Mg</del>	=	<del>mega-grams</del>
<b>MW</b>	=	<b>megawatts</b>
<b>µg</b>	=	<b>microgram, one millionth of a gram</b>
ppb	=	parts per billion
ppbv	=	parts per billion, by volume
ppm	=	parts per million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scf	=	standard cubic feet
scfm	=	standard cubic feet per minute
sdcf	=	standard dry cubic feet
sdcfm	=	standard dry cubic feet per minute
<b>therms</b>	=	<b>1 therm = 100,000 BTU</b>
yd	=	yard
yd <sup>3</sup>	=	cubic yards
yr	=	year

**~~XL~~XII. APPLICABLE STATE IMPLEMENTATION PLAN**

The Bay Area Air Quality Management District's portion of the State Implementation Plan can be found at EPA Region 9's website. The address is:

<http://yosemite1.epa.gov/r9/r9sips.nsf/California?ReadForm&Start=1&Count=30&Expand=3.1>